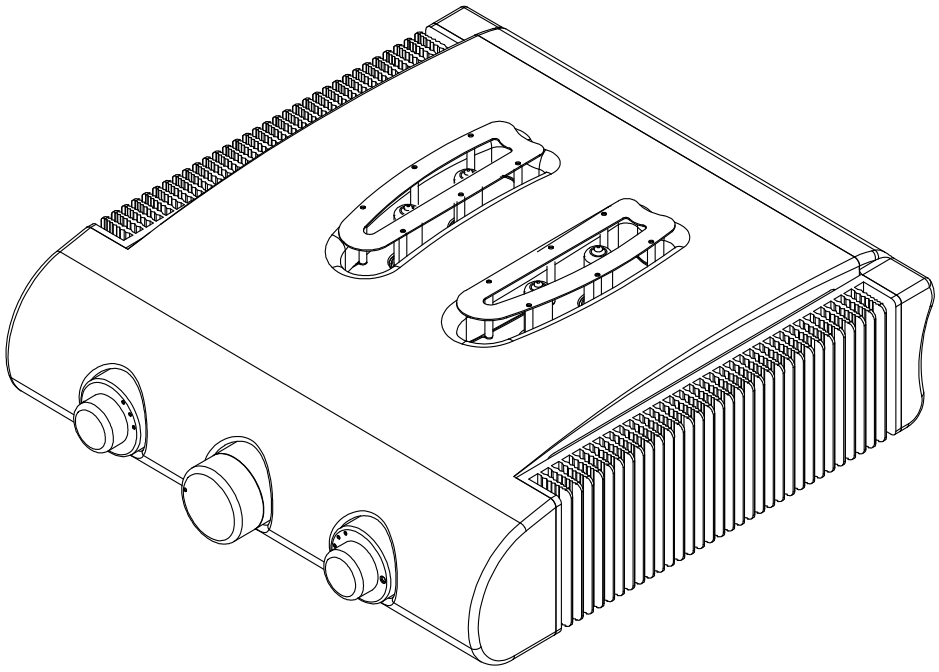
SOUND AND SPACE

Partenope
Integrated Amplifier

User Manual



Important Safety Instructions

1. Read these instructions.
2. Save these instructions.
3. Pay attention to all advice.
4. Always follow instructions.
5. Do not use this unit in presence of water.
6. Clean with a dry cloth only.
7. Do not obstruct venting holes and heat sinks. Install as indicated by the manufacturer.
8. Do not install near heat sources as heaters, heat pumps, stoves or other equipment which produces heat.
9. Do not alter the functionality of a polarized plug or one provided with an earth connection. A plug is polarized when it can be fitted in the mains socket in only one way. A plug provided with earth connection has two prongs for current and a third one for earth connection. The latter is provided for user's safety. If the plug provided doesn't fit your mains socket consult your technician to obtain a replacement for the obsolete mains socket.
10. The mains cable represents the emergency detachment device for this unit. It is important to grant a quick access to this cable at any time.
11. Protect the mains cable against trampling and mashing, particularly close to the plug and to the connector at the input socket.
12. Only use connectors and accessories specified by the manufacturer.

13. Only use the cart, stand, tripod or table specified by the manufacturer or sold with the unit. When using a cart, pay attention while shifting the cart/unit ensemble to avoid harming people or flipping the cart upside down.
14. Isolate the unit from mains during lightning storms or when it's not operated for extended periods of time.
15. Refer all servicing to qualified personnel. Servicing is required when the unit is damaged due to any reason, e.g. when mains cable or plug are damaged, when a liquid is spilled on it or when objects drop on the unit, when the unit is exposed to rain or moisture, or when the unit is not operative or has been dropped from whatever height. The replacement of the outer shell must be considered a service operation.
16. Venting must not be impeded by obstructing venting holes and heat sinks with objects like newspapers, towels, curtains and the like.
17. Do not place any free flame, like a candle or the like, on the unit.

18. Terminals marked with this label must be considered DANGEROUS and the connections external to these terminals require servicing by a TRAINED TECHNICIAN or the use of factory prepared cables.

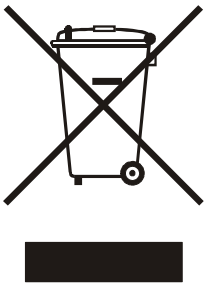
Warning!

To reduce the risk of fire or electric shock, do not expose this unit to rain or moisture. Do not place objects containing liquids, like bowls or glasses, on this unit.

Warning!

Changes or modifications not authorized by the manufacturer can invalidate the compliance to CE regulations and cause the unit not to be suitable for use any longer. The manufacturer rejects any responsibility regarding damages to people or to things due to the use of a unit which has been subject to unauthorized modifications or due to misuse or to malfunction of a unit which has been subject to unauthorized modifications.

Instructions for Recycling



The label on the left, printed on the envelope of the product, indicates that the product, when no more usable, can't be treated as generic garbage, but must be disposed of at a collection point for recycling of electrical and electronic equipment, in compliance with the WEEE regulation (Waste of Electrical and Electronic Equipment).
By making sure that this unit is correctly recycled, you will help preventing potential damages to environment and to human health. Recycling helps saving natural resources. For more in-depth information about recycling this product, please contact Absoluta Sound and Space Srl.

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Safety Terms and Symbols

This document contains instructions on generic safety, installation and use for Partenope integrated amplifier. It's important to read this document before trying to use this amplifier. Pay particular attention to safety instructions.

Appears on the unit to indicate the presence of uninsulated, dangerous voltages inside the enclosure - voltages sufficient to constitute a risk of shock.

Appears on the unit to indicate important operation or maintenance instructions included in the accompanying documentation.

CE

Appears on the unit to indicate compliance with the EMC (Electromagnetic Compatibility) and LVD (Low-voltage Directive) standards of the European Union.

Warning! Calls for attention to a procedure, practice condition, or the like that, if not correctly performed or adhered to, could result in personal injuries, death or damages to the unit or to other objects.

Note Calls for attention to very important information.

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Introduction

Special Design Features
Design Principles

Dear Customer, thank you for purchasing Partenope integrated amplifier. Partenope combines the performance, versatility, purity and definition of a great multi-chassis unit with the small form factor of an integrated amplifier. It delivers the great sound, that only the best products can deliver, and has an original and captivating look.
Below you will find a description of all the features that make Partenope a unique and valued product.

Customizable external shell

Partenope, like all Absoluta products, features an external removable shell, that can be easily replaced, to adapt the look of the amplifier to the furniture style and to better match the owner's taste. The shell is available in various standard finishes. In addition to standard finishes the customer can request custom versions, choosing amongst several materials and colors.

Highest class components

Partenope is made with first-class components, like the encapsulated toroidal transformer with reduced stray flux and large bandwidth, low noise and great linearity selected tubes, low tolerance polypropylene capacitors and special low noise resistors for audio use.

Extremely refined power supply

The double layer printed circuit boards host specific functions to grant the maximum separation amongst the various parts of the circuit. Their structure is optimized for signal path and for power connections minimization.
Each circuit section is powered by a dedicated regulated supply section. Each of the double triodes which make the gain stage of the line and the MM phono amplifiers have their own heat supply, independent from the transformer secondary winding. B-rail supplies are separated for each channel and regulated with discrete components circuits. Additional filter blocks further reduce ripple and noise.

DC-coupled balanced tube line stage

Absoluta has seen a major sound detriment in the non-linear operation of capacitors' dielectric. For this reason, Absoluta power amplifiers use totally DC-coupled circuits. Much more difficult has been to implement a DC-coupled tube circuitry from input to output. Absoluta succeeded by using a "folded

cascole" differential pair with common anode output buffer. This layout allows for automatic signal balancing (be it applied in single-ended or in differential mode), an ample bandwidth and a reduced output impedance, all at the same time and with the sound quality that only tubes give, without feedback.

Thanks to the automatic balancing feature, a single-ended and a balanced signal are always available on outputs (on RCA and XLR connectors, respectively), no matter the kind or source selected. This is obtained without using integrated circuits to balance the signal. However Partenope is provided with a balanced input.

Volume control is made with a sophisticated motor-operated four-section potentiometer. Muting and phase inversion features, as well as input selection, are implemented with high quality audio grade relay.

Complete and versatile phono stage

The phono stage allows both high output (MM or high output MC, "moving flux", moving iron) and low output (MC) pick-up. The phono stage is made with a very low noise and very low distortion operational amplifier. It allows for choosing between two gain settings so as to optimize the interface with both normal ferrite magnets MC and AlNiCo magnets MC, which come with higher efficiency and thus lower output impedance.

Current gain technology

Absoluta has chosen, for her power amplifiers, to adopt the current gain technology for the signal amplification chain, instead of the traditional voltage gain technology. The advantages of the choice made by Absoluta are numerous and can be read within Partenope specs: a very large power bandwidth (That is the frequency response measured when the amplifier is delivering
the rated power), a reduced rise time, capable of supporting the fastest transient at every listening level, and an intrinsic stability on every load.

The large use of output devices (two 16A Sanken BJT for each polarity) and the robustness of the power amplifier granted by the two 410VA transformers allow for an exemplar behavior of the Partenope with every loudspeaker, even with impedances less than 4Ω. Actually, The output stage of Partenope behaves as a real I-V converter, imposing to the load a faithful copy of the current signal amplified by the signal chain.

"Diamond" input stage

This sophisticated input stage is made following the "diamond" topology, which allows for a high input impedance, absolute linearity and intrinsic V-I conversion with nearly infinite bandwidth and absence of any slew-rate effect.

Loudspeakers' safety is guaranteed by a circuit which senses the offset (direct current) on the speakers output, disconnecting the load from the amplifier until the cause of the offset is removed. The same circuit immediately disconnects the load when an abnormal dynamic condition occurs (for example, when a interconnect is inserted on the amplifier input when it is on).
The circuit is also effective when a fault or malfunction of the amplification circuit occurs.

As further safety guarantee of the amplifier, a specific circuit senses the temperature of the heat sinks and disconnects the load (thus reducing the power dissipated by the output devices to a minimum) when their temperature rises too much.

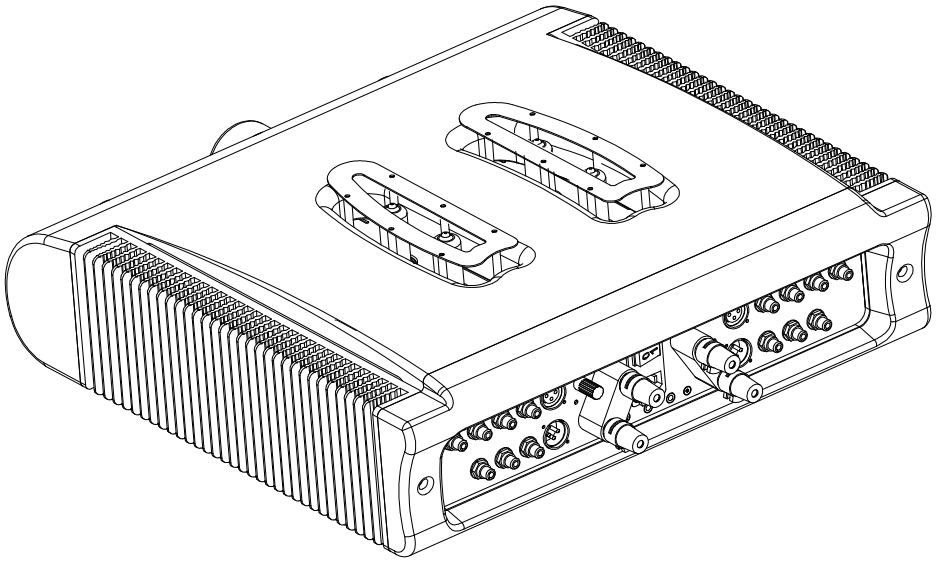
Sophisticated and non-intrusive protections

All of Partenope features are implemented by a microcontroller. It receives commands by the controls on the front panel or by a remote control. Some features (as phase inversion of selected input or front panel's led indicators switch off) are available on the remote control only. Partenope may also be set in standby, mode in which its power consumption is strongly reduced, while complete switch-off is obtained by operating the main power switch on the back panel, close to the mains socket.

Partenope is also provided with a trigger input for remote activation by an external controller, and with a 12VDC trigger output to activate another component
.

Protections against DC offset

Being its line circuit DC-coupled, Partenope is provided with sophisticated protection circuits against DC offset on its outputs, to protect both the power amplifiers and the loudspeakers. Partenope's controller continuously monitors the offset on outputs and when it grows beyond a safety limit, the output relay disengage and the outputs are effectively isolated until the offset disappears.
A part of this circuit manages the burn-in transient of the tubes at switch-on.



Unpacking

Warning!

Warning! DO NOT try to lift or move Partenope without adequate assistance. Failure to follow the procedures included in this section may result in personal injuries and/or product damage.

Partenope is a heavy and massive amplifier. Its weight is 31 kg (68.34 lbs.) without packaging, 43 kg (94.80 lbs.) with packaging. Don’t get fooled by its small size: its weight is enough to cause injuries to your spine, more so when it’s not possible to use a correct lifting technique. Two people are required to lift and shift Partenope.

Warning!

DO NOT try to extract Partenope from its packaging without help.

DO NOT try to lift Partenope while bending on it. When lifting it, keep your back vertical as much as possible, using your legs to lift the amplifier.

When extracting Partenope from its packaging:

- DO save all packaging materials for possible future shipping needs.
- DO inspect Partenope for signs of damage during shipment. If damage is discovered, contact an Absoluta authorized dealer for assistance.

Installation Considerations

Partenope requires special care during installation to ensure optimal performance. Pay particular attention to the precautions included in this section and to other precautions included throughout this owner's manual.

Placement

- DO review "Important Safety Instructions" and "Power Requirements" before installing Partenope.
- Do place Partenope on a solid, flat, level surface, such as a table, a shelf or the floor.
- DO position Partenope close to the associated loudspeakers to keep loudspeakers wires as short as possible. If necessary use longer
  interconnect cables between Partenope and other sources. This is preferable because interconnect cables pass low-voltage signals, which transmit over distances with greater accuracy than the high-voltage signals required by loud-speakers.
- DO allow at least 15cm clearance behind Partenope for the power cord and other cables to bend without crimping or straining.
- DO see "Dimensions" for assistance with custom installation.
- DO NOT position Partenope near low-level components. This amplifier is capable of producing massive output currents
  which could generate significant magnetic fields that could induce noise in some sensitive components.
- DO NOT place Partenope on a windowsill or in any other location in which it will be exposed to direct sunlight. Solar radiations can damage it or alter its color.

Warning!

BEFORE moving Partenope, make sure it is powered off using the power cocker switch on the back panel. Then, make sure that the power cord is disconnected from the AC mains connector and from the power outlet.

DO NOT attempt to move Partenope without adequate assistance. Proper lifting requires at least two people.

Ventilation

Partenope dissipates the heat produced during operation through two massive heat sinks placed laterally to the cabinet, and thanks to several venting holes located on the bottom and on the

top of the cabinet. The hot air coming out of these holes finds it way thanks to a particular design of the external shell.

When Partenope is placed in a position in which a correct air flow is provided, its proper operation is ensured at every listening level and with every loudspeaker.

Due to the high bias of output devices, Partenope produces relevant heat even when idle. The heat sinks can become very hot during high volume listening. Please consider that a temperature of 40°C makes the heat sinks too hot to touch with bare hands. Thermal protection triggers when the temperature of the heat sinks reaches 70°C.

- DO select a dry, well-ventilated position, out of direct sunlight.
- DO NOT obstruct venting holes on the bottom and on the top of the cabinet or on the outer shell. Do not reduce air flow through the cabinet and around the heat sinks.
- DO NOT place Partenope on a thick carpet. Do not cover it with a cloth, as this would impede proper cooling. If Partenope is placed on the floor, use a thick tempered glass sheet to provide a stable base and to provide adequate venting.
- DO NOT expose Partenope to high temperature, humidity, steam, smoke, dampness or excessive dust. Do not install Partenope near radiators and other heat-producing appliances.

Power Requirement

Partenope is configured to operate at the voltage present in the Country where it is sold. Before activating Partenope, make sure that the label on the back panel indicates the right mains voltage.

Warning!

DO NOT attempt to adjust the operating voltage. Consult an authorized Absoluta dealer if the operating voltage is incorrect or if the operating voltage must be changed for relocation purposes.

BE ADVISED that different operating voltages may require the use of different power cords and/or attachment plugs. Contact an authorized Absoluta dealer for assistance.

Partenope does require relevant supply current. Consider installing a dedicated AC circuit for the home entertainment system. Contact a licensed electrician for assistance. If more than one electric circuit is providing power to the system, contact a licensed electrician to ensure that all components are operating with the same, solid low-impedance round reference.

Note

Building regulations and electrical codes differ from location to location, making it impossible to anticipate the requirements of high-current AC circuits such as Partenope is capable of using. Contact a local, licensed electrician for information.

Warm-up & break-in period

Although Partenope delivers superior performance from the first time it's powered on (provided that the tubes have gone through an initial warm up phase while Partenope is in muting mode), its performance will continue to improve as the power amplifier reaches its normal operating temperature and various components "break-in". The greatest performance improvements will occur within the first 100 hours of use. Sound quality will continue to improve for about 300 hours. After this initial period, Partenope's performance will remain consistent unless the unit is switched off. Once switched off, after the successive switch-on, nearly half an hour will occur before Partenope will give the best performance again.

Tubes wear out

As it is true for all tube equipment, the performance of Partenope might reduce after several thousands of hours of use (10,000 to 20,000, depending on the frequency of power cycling). Should this happen, it is necessary to replace the tubes. Contact your authorized Absoluta dealer for this purpose.

Operating Modes

Partenope has three operating modes:

1. Off

Power is considered disconnected from Partenope (back panel Switch on “0” and trigger input not connected or power cord disconnected).

2. Standby

The back panel switch in on “1”, the (the indicator is on). The power cord is connected to the power outlet and the trigger input is connected to the trigger output of another device, but it’s not active. Partenope is not operative but can be switched on activating the trigger output of the device to which its trigger input is connected. It can be switched on also rotating the left knob or pushing the related button on the remote.

3. On

The power cord is connected to the mains outlet and the back Panel switch is on “1” and/or the trigger input is driven (active) by the trigger output of another device. It is on also when the left knob has been rotated clockwise or the related button on the remote has been pushed.

Note

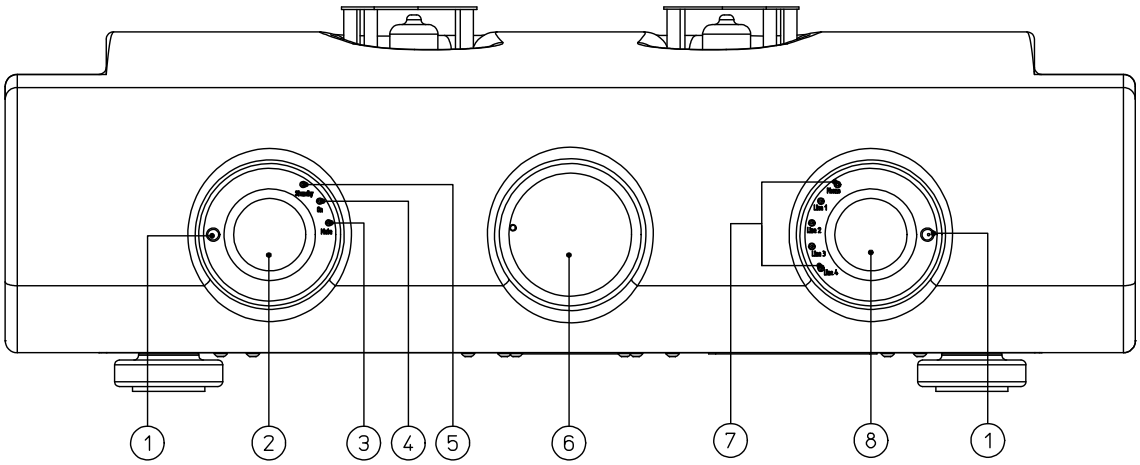
Partenope, as every tube equipment, shows a relevant power consumption with respect to the magnitude of the signals it manages: for this reason, it generates relevant heat. Idle power consumption is 60W, which are dissipated as heat.

Partenope should be unplugged from the mains outlet during lightning storms and during extended periods of non-use. Otherwise, it can remain connected to the mains outlet.

Non stop use

Although Partenope’s performance reaches its best after half an hour of operation, it is better not to keep the unit continuously on to have the best sound always available. This would cause an unnecessary waste of electrical power and of tube life while not listening to music (20,000 hours are roughly two years of continuous operation). Partenope would be exposed to unnecessary risks and some fundamental components would be subject to fast ageing.

Operation



Front Panel

The numbers in this illustration of the front panel of Partenope shown above correspond with the items in this section.

1. Remote IR sensors

These sensors receive the infrared signals from the remote. Do not place any obstacles between them and the remote.

2. Standby/muting knob

By this knob it is possible to activate Partenope or to put it into standby. It is also possible, when the unit is on, to activate or to defeat the muting that reduces the listening level to 20dB. The three indicators on the outer ring of the knob indicate the status of the standby and muting features.

3. Muting indicator

This indicator turns on when muting is active. If the off feature of the indicator is activated by the remote, this indicator will lit for few seconds when activating muting.

Front Panel (continued)

4. Normal operation indicator

This indicator lights up during Partenope normal operation. If the off feature of the indicator is activated by the remote, this indicator will light up for few seconds when every command is issued.

5. Standby and protection activation indicator

This indicator lights up steadily when Partenope is in standby. The Indicator blinks during tubes warm-up after activation and every time the DC offset protections engages. If the indicator doesn't stop blinking after some seconds, it's better to switch Partenope off and to contact an authorized Absoluta dealer for assistance.

6. Volume knob

Set listening level by rotating this knob. The knob is motor-operated, so it turns autonomously when setting the listening level from the remote. A led indicator shows the rotation angle of this knob in the darkness. If the off feature of the indicator is activated by the remote, this indicator will light up for a few seconds when every command is issued.

7. Input indicators

These indicators show which source (input) has been selected for listening. Only one indicator at a time lights up. The color of the light shows the choice of the phase for the selected input:
blue means non-inverting phase, red means inverting phase.

Note

If the 'off' feature of the indicator is activated by the remote, this indicator will light up for few seconds when every command is issued the selected input only: the phase setting of other inputs doesn't change when changing the phase for the selected input. This way it is possible to choose the right phase setting for each source (e.g. many tube output CD players are inverting, while pick-ups phono preamps, tuners and other sources generally aren't: by inverting phase on the input to which the tube CD player is connected, the absolute phase is restored while listening to CD's while not inverting it when listening to other sources).

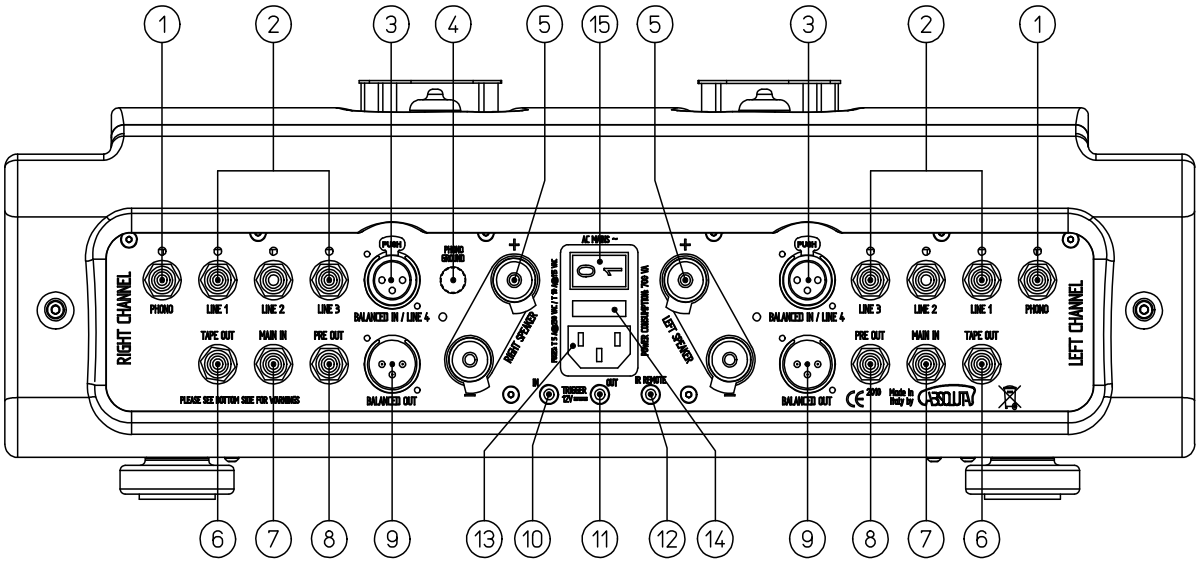
Front Panel (continued)

8. Input selection knob

Source selection for listening is performed with this knob.

Note

This is a continuous rotation knob: when No5 input is selected by rotating it clockwise and the rotation is continued, No1 input will be selected next. In the same way, when No1 input is selected by rotating it anticlockwise and the rotation is continued, No5 input will be selected next.



Back Panel

The numbers in the back panel illustration of the Partenope shown above correspond with the items in this section.

1. Phono/Line Input

This input can be set to accept signals coming from an MM or MC pick-ups or as line input.

2. Single-ended line inputs

Partenope is provided with three single-ended (unbalanced) line inputs. They can be used to connect sources to Partenope, like
CD players, tape recorders, tuners and other sources provided with analog outputs with voltages between 150mV and 2,5V. Higher voltage sources can be connected as well, but the high voltage will make listening level settings difficult, because it forces the user to only use few degrees of the volume knob's rotational arc.

Note

It's also possible to connect balanced sources to these inputs, provided a suitable XLR-RCA adaptor is used. It's better to use the balanced input Partenope is provided with to connect balanced sources.

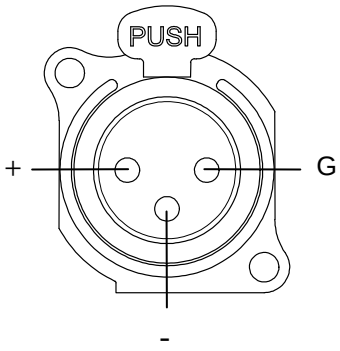
3. Balanced line input

Connect this input to a source with balanced outputs.

Note

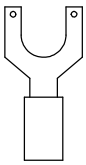
It is also possible to connect the balanced line input to a source with a single-ended using a special adaptor RCA . XLR. However it is preferable to connect this source to one of the single ended inputs of Partenope.

Note



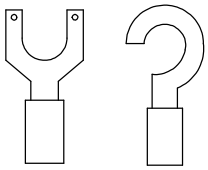
Pay attention to the setting of the hot and cold poles in the balanced input connector of the source connected to Partenope. There are two standards: one used in Japan and sometimes in the USA and one used in Europe and often in the USA. In the two standards the hot and cold poles are opposite. Absoluta products go by the European standard. If the source that you are using goes by the Japanese standard it is possible to is possible to invert the phase of the balanced input using the proper button on the remote control.

4. Phono cable shield binding post



Usually, the interconnect between the turntable and the phono input is provided with an electric shield, which is accessed with a wire, generally terminated with a spade. This wire must be connected to the preamplifier's chassis to give the best immunity to noise. Connect the shield wire to this binding post.

5. Positive output post



Power output positive post. A gold plated connector accepts bare wire, bananas and spades lugs. Thanks to the presence of an axial hole it is possible to simultaneously connect two cables, one of which terminates with bananas, in order to implement bi-wiring connection of the loudspeaker. The large size of the connectors makes for best current transfer from amplifier to loudspeaker.

NEVER connect the positive power output to any component other than to a loudspeaker

NEVER short-circuit the positive output to the negative one or to any metal part of the amplifier.

6. Tape recorder output

It is possible to connect the input (rec) of a tape recorder to this output to record the signal coming from the source which has been selected for listening. To retain the maximum signal purity, no monitor loop has been implemented, thus it's not possible to monitor in real time the signal being

recorded on the tape.

Note

Avoid selecting the input to which the tape recorder's output (play) is connected while the recorder is recording: should the volume be too loud a strong whistle will be produced and this could damage the loudspeakers.

7. Power amplifier input

When you select the separation of the preamplifying and of the amplifying sections of Partenope through the remote control you can access the amplifying section through this input. It is possible to control the amplifying section of Partenope through another preamplifier. It is also possible to connect an equalizer or any other signal processor between the preamplifying and the amplifying sections and take the signal to the amplifying section through this input.

8. Single-ended preamplifier output

Connect a stereo power amplifier or a pair of monoblock power amplifiers provided with single-ended (unbalanced) RCA inputs to this output. It is also possible to connect an equalizer or another signal processor between the preamplifier and Partenope power stage by activating the separation between the preamplifing section and the power amplifying section of Patertenope through the remote control.

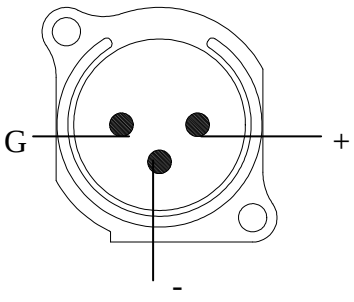
Note

The single ended preamplifier output is always active even if the separation between the preamplifying and the poweramplifying section of Partenope isn't active.

9. Balanced preamplifier output

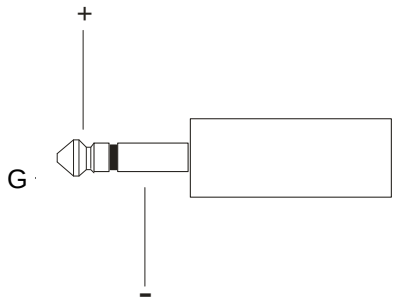
Connect to this output a stereo or two mono power amplifiers with balanced inputs and XLR connectors. It's also possible to connect a single-ended source to this input using a suitable RCA-XLR adaptor. However, it's better to utilize the single-ended output described at n. 8.

Note



Pay attention to the layout of hot and cold poles ("send" e "return") in the balanced input connector of the power amplifier used with Partenope. Two standards can be found, one used in Japan and, sometimes, in USA; the other used in Europe and, often in USA. The two standards differ in which hot and cold poles are exchanged in the connectors. Absoluta products comply to European standard. Should your balanced source adhere to the Japanese standard, a phase reversal results from

connecting the source to Talia, one which can be recovered by using the phase reversal command from the remote control.



10. Trigger input connector

3,5mm jack socket for trigger input. By applying a 12V DC voltage to this socket Partenope is activated, no matter the state of the power main switch. The trigger input and the main power switch are in parallel, thus the trigger input is not operative when the main power switch in on "1" (that is, it's not possible to switch the Partenope off by triggering the main power switch). Connect Partenope trigger input to the trigger output of a controller.

Warning

PAY ATTENTION to the polarity of the voltage applied to the trigger input: it's protected against polarity inversions, but the trigger output of the driving unit could be damaged.

11/12. Trigger output connector

3,5mm jack socket for trigger output. A 12V DC voltage is available on this output when Partenope is on. Using this output it is possible to activate another component provided with a trigger input. For example, in a system in which a power amplifier is used, the power amplifier can be activated by Partenope connecting the trigger output of Partenope to the trigger input of the power amplifier. This Way the entire system can be controlled through Partenope remote control.

Since the power voltage becomes available to the output only after Partenope has completed its warm up phase and there is no offset on the outputs, the use of the trigger to switch on the power amplifier helps the power amplifier or the speakers from being damaged by the transitional power.

The trigger output is protected against shorts and overloads buy a replaceable fuse. It is advisable though to pay attention to the polarity of the connection and not to overload the output (please see technical specs to find out what the maximum overload tolerated by this output is.

The trigger output is protected against short-circuits and Overloads by a poly switch fuse. It's always better to check the polarity of the connection and not to overload the output (refer to technical specs to find out the maximum output current delivered by this output).

Back Panel (continued)

Note

By each couple of input connectors there is an indicator which will light up when the corresponding input is selected. This feature is particularly useful when connecting the unit. It helps to identify what unit is connected to Partenope.

13. Mains socket

Provides supply to Partenope when the provided power cord is connected.

Note

Before switching Partenope on, make sure that the label on the back panel showing the operating voltage is indicating the right voltage

Warning!

Partenope has been designed and tested to be used with a power cord provided with earth wire and a three prongs plug. Do not damage or detach the earth prong from the power cord plug.

14. Fuse holder

The fuse holder contains the main power fuse. Internal circuits are already protected by other fuses located on the printed circuit board.
The fuse container in this fuse holder only burns after critical events (huge amplifiers faults). Should this happen, disconnect the power cord from the outlet and contact an authorized Absoluta dealer for assistance.

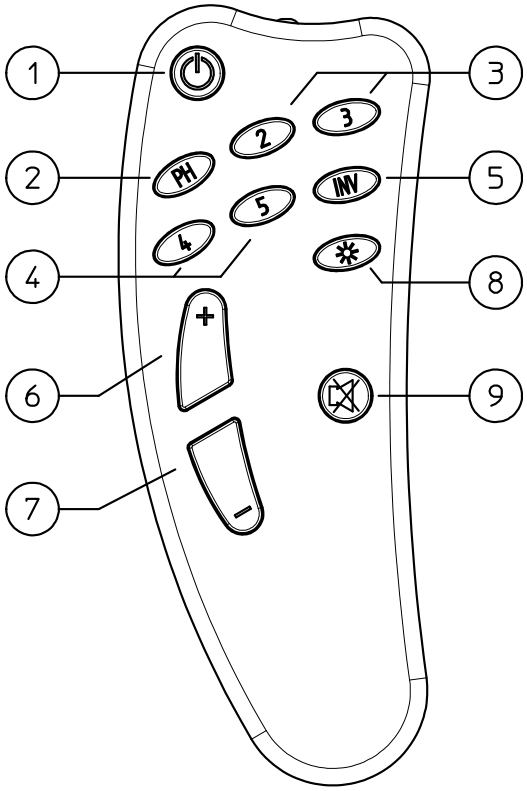
Warning!

DO NOT try to replace the fuse.

Potentially dangerous voltages and relevant charge are present inside Partenope even when the amplifier is off. DO NOT try to open the amplifier's cabinet to try servicing. Contact your Absoluta dealer.

15. Main power switch

Switches Partenope on ("1" position) and off ("0" position) when the power cord is connected to a power outlet and the trigger input is not active (in this case the preamplifier is always on regardless of the state of the switch.



Remote Control

The numbers in the remote control illustration shown above correspond to the items in this section.

1. Activate/standby button

When Partenope is in standby (back panel main power switch on “1” or trigger input driver and indicator No5 lit), it is activated by pressing this button: the indicator No5 starts blinking and the tube warm-up phase begins.

When Partenope is active (indicator No4 lit), it is put into standby
by pressing this button: the indicator No4 turns off, the indicator No5 turns on and the unit enters in a low consumption mode, turning all audio circuits off, disengaging all outputs and turning the trigger output off.

2-3-4. *Input selection buttons*

By pressing one of these buttons while Partenope is active, the related input is selected: Partenope amplifies the signal coming from the source connected to that input, the related indicator on the front panel lights up (in blue or in red, depending on the phase setting previously chosen) and the indicator on the back panel, close to the selected input, also lights up.

Remote control (continued)

5. Phase selection button

When Partenope is active, the phase of the selected input can be changed by pressing this button: when phase is not inverting, it becomes inverting and vice versa. The selected input indicator changes color accordingly with the phase setting: blue for non-inverting and red for inverting.

Note

The phase setting for the selected input is stored in a non-volatile memory. It's not necessary to make the choice every time that input is selected. Moreover, the phase setting for one input doesn't affect the phase setting for the other inputs. Each input has an independent phase setting. This is useful because not all sources have the same phase: for example, a tube output CD player often has inverting phase, while a turntable is generally non inverting.

Note

The phase inversion feature is also useful to compensate for phase inversion of some recordings due to careless connection of some of the various equipment in the recording chain. This happens more often than you think and the restoring of the absolute phase often gives audible enhancement to the sound quality.

6. Volume up button

When Partenope is active or in warm-up (indicator No4 lit or indicator No5 flashing), volume can be increased by pressing this button.When pressing this button the volume knob will rotate clockwise and the volume will increase. Keep the button pressed until the desired listening
level is obtained.

Warning!

This command also operates during warm-up and error situations (red led flashing), thus attention must be paid when using this command in these occurrences. If the volume is raised excessively, at the end of warm-up or when normal operation conditions are restored, when Partenope engages its outputs, the listening level could be high enough to damage the loudspeakers.

7. Volume down button

When Partenope is active or in warm-up (indicator No4 lit or indicator No5 flashing), volume can be decreased by pressing this button. Keep the button pressed until the desired listening level is obtained. The volume knob will rotate counter clockwise. It's a good habit to reduce the listening level during Partenope warm-up phase, to avoid excessive stress to loudspeakers and power amplifier when warm-up ends.

8. Front panel's indicators switch-off button

When Partenope is active or in warm-up (indicator No4 lit or indicator No5 flashing), the front panel indicators can be turned on and off by pressing this button. This feature can be useful when listening in the darkness of in soft lights, particularly when Partenope is part of an audio-video system, when indicators' lights can be distracting to the listener. When indicators are on, they can all be turned off by pressing the button; conversely, when they're all off, by pressing the button, those which are active, are turned on (typically: the selected input indicator, the volume position indicator, the one which indicate Partenope's normal operation and eventually the muting indicator).

Note

When indicators are off, the use of any command causes their activation for a few seconds to show the unit's status.

9. Muting button/Separation of pre-amplifying section and amplifying section

When Partenope is active or in warm-up (indicator No4 lit or indicator No5 flashing), muting is toggled by pressing this button. Muting is a useful feature. It allows to reduce the listening level to 20dB every time a volume reduction is needed without altering the optimal volume setting: for example, to answer to a phone call or when a record needs to be flipped. When indicator No3 is off, muting is activated by pressing this button. The indicator turns on and the listening level is reduced without changing the volume knob's position. When indicator No3 is on, muting is excluded by pressing this button. The indicator turns off and the listening level is restored to its initial setting.

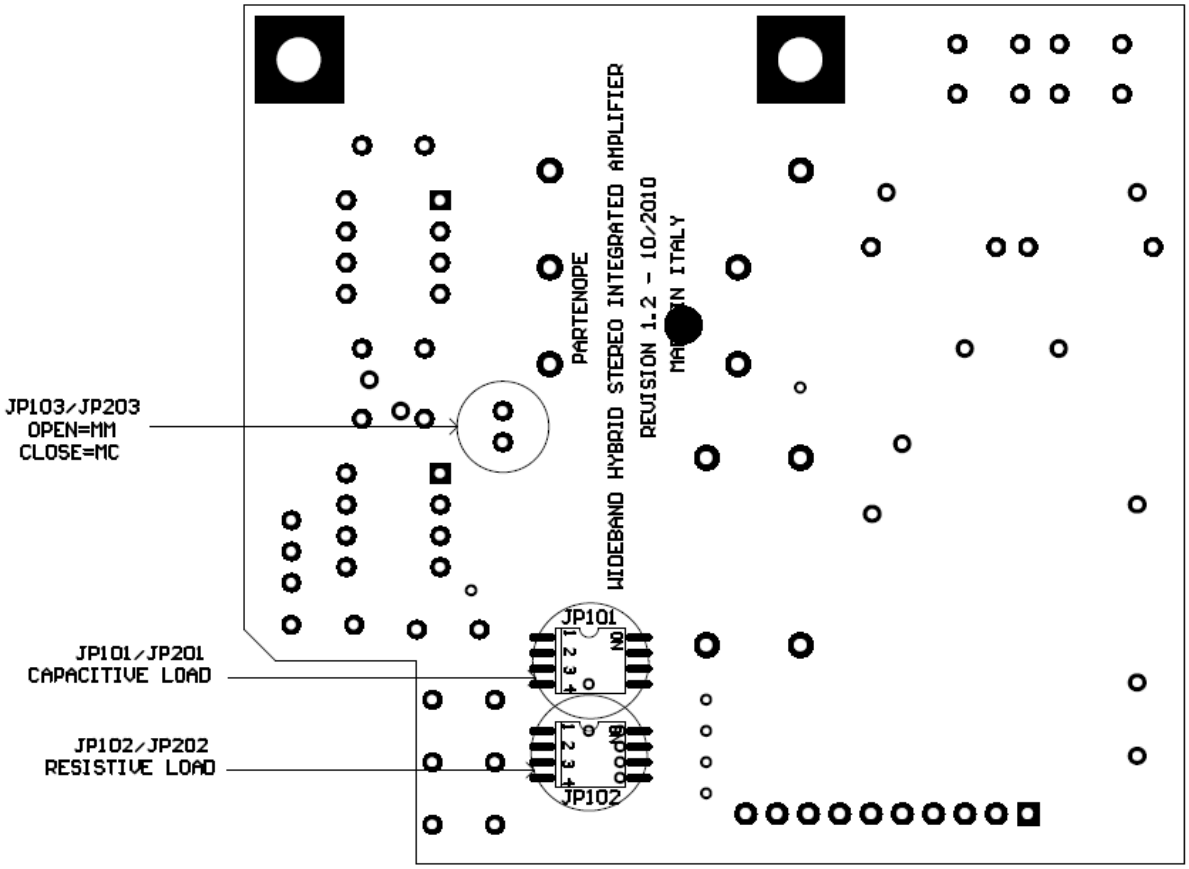
By keeping this button pressed you will cause the activation (if not active) or the deactivation (if active) of the separation between the pre-amplifying and the power-amplifying sections of Partenope.

Warning!

Whenever an insufficient listening level is perceived, check for muting status before operating the volume control: in fact, should muting be active, and should volume be excessively raised to reach the desired listening level, the subsequent muting turn-off can cause listening levels high enough to apply excessive stress to loudspeakers and to the power amplifier.

Optional Phono Stage

There are two optional phono stage printed circuit boards that can be installed inside Partenope and will allow you to connect it to a turntable.
These printed circuit boards are designed to offer maximum connection flexibility. Their configuration must be made by Absoluta of by another authorized technician.



The phono stage PCB accept signals both from MM and MC pick-ups. The JP103/JP203 bridge allows to select the gain of the phono stage based on the voltage of the output of the pick-up.
When the bridge is not active the gain is 40dB (for high output MM or MC pick-ups); when the bridge is active the gain is 60dB (for low output MC pick-ups).

Two groups of micro switches (JP101/JP201 and JP102/JP202) Allow to select the impedance and the input capacity of the phono stage. Please see the chart below:

Optional phone stage (continued)

JP101/JP201: capacitance selection				
1	**2**	**3**	**4**	**Valore**
OFF	OFF	OFF	ON	100pF
OFF	OFF	ON	OFF	220pF
OFF	OFF	ON	ON	320pF
OFF	ON	OFF	OFF	330pF
OFF	ON	OFF	ON	430pF
ON	OFF	OFF	OFF	470pF
OFF	ON	ON	OFF	550pF
ON	OFF	OFF	ON	570pF
OFF	ON	ON	ON	650pF
ON	OFF	ON	OFF	690pF
ON	OFF	ON	ON	790pF
ON	ON	OFF	OFF	800pF
ON	ON	OFF	ON	900pF
ON	ON	ON	OFF	1020pF
ON	ON	ON	ON	1120pF

JP102/JP202: selezione resistenza				
1	**2**	**3**	**4**	**Valore**
OFF	OFF	OFF	OFF	47kΩ
OFF	OFF	OFF	ON	23.5kΩ
OFF	OFF	ON	OFF	1kΩ
OFF	ON	OFF	OFF	100Ω
ON	OFF	OFF	OFF	33Ω

Note

23.5 kΩ is the right value for some high output pick-ups in the event that the standard value of 47kΩ (commonly recommended for all high out-put pick-ups) is too open on high frequencies.

CONNECTIONS

Partenope offers numerous options for connection to different sources, to loudspeakers and to a power amplifier.

Absolute phase

The absolute phase of the signal (that is the relationship between the phase of the incoming signal from the source and that of the signal sent to the power amplifier) can either be maintained or inverted on each channel, depending on the source polarity and on the phase of the recording.

The selected input maintains the absolute phase when the color of the related indicator is blue; it inverts the phase when the color of the related indicator is red. The phase setting of the selected input can be changed by pressing button No5 on the remote control (see “Remote Control”).

The phase setting for each input is stored on a non-volatile memory, thus the setting is restored at turn-on and it’s not necessary to use this command every time power is cycled.

Bi wiring

Many loudspeakers give better performance when driven in bi-wiring. This technique requires the use of a pair of cables to drive the low frequency section of the loudspeaker and another pair of cables to drive its mid-high section. To implement this technique it is necessary for the speakers to be provided with two pairs of binding posts.

Because of its small dimensions Partenope is provided with a single pair of output binding posts, it is necessary to connect two cables to each post. It is advisable to choose cables with terminations that don’t apply excessive strain to the posts of the amplifier. A good choice could be using bananas for one cable pair and spades for the other, such as to use both connection modes offered by the posts.

Passive bi-amping

If you wish to use an amplifier other than Partenope (passive multiamping, p. 36) this must be connected to the pre out output of Partenope (see p. 23, n.8/9). The external amplifier will be able to drive for instance low frequencies while Partenope amplifying section will be able to drive the high frequencies (passive bi-amping). In order to avoid unbalances it is important that the external amplifier has the same current gain as Partenope.

Active bi-amping

If you have an electronic crossover (adjustable or customized to your speakers, p.37) it is possible to insert it between the preamplifier and the power amplifier of Partenope after having

activated the separation of the two stages (see p.28 n. 9). Connect the pre out output of Partenope to the input of the electronic crossover; connect the high frequencies output of the crossover to the to the main in input of Partenope (see p. 23, n.7); connect the output for low frequencies of the crossover to the external amplifier input. Following these instructions you will obtain a an active bi-amping. In this case it is possible to utilize an external amplifier with a different current gain than Partenope because the crossover usually has independent level controls for each output.

The low output inpedence of the preamplifying section of Partenope allows to drive more than one amplifier without any problems.

Phono input

The phono input can be set up as a normal line input or as a phono input using the two optional phono printed circuit boards (optional phono stage, p.29)

Note

The installation of the optional phono printed circuit boards must be done by an Absoluta dealer or by Absoluta.

Hum and ground loop

Phono input is particularly delicate due to the reduced output level of pick-ups. This is even more so when MC pick-ups are used. The lower the pick-up output level, the worse the signal-to-noise ratio at phono input, the more likely the perception of background hum.

To limit this problem, great care must be used to the connection of the shield wire of the turntable interconnect. Usually, the shield wire must be connected to Partenope's chassis binding post. It may happen that this solution increases the hum, thus some tests must be performed. Sometimes, connecting the shield wire directly to the electric net's earth can help reducing hum: in this case, a plug can be used in which the shield wire is connected to the mid prong.

Sometimes, the hum is caused by a poor shielding of the turntable interconnect. In this case, the replacement of the turntable interconnect can be effective. Be aware that not all good interconnects are good turntable cables, even if they're perfect for line-level sources.

It may happen that a background hum is perceived when listening to one or more sources, or even with all sources: chances are that a round loop is affecting the system. A ground

loop is made every time two components have their chassis connected to the electric net's earth (mid hole of wall outlets) and an electrical continuity is present between their chassis and their circuit's ground: as all system's components ground are connected together, a closed loop is made in which a disturbing current flows and it generates a spurious signal: the hum.

To minimize this effect it can be useful to reduce the loop area at a minimum by connecting all components to the same power distribution strip, avoiding the use of wall outlet which are physically far from each other.

Warning!

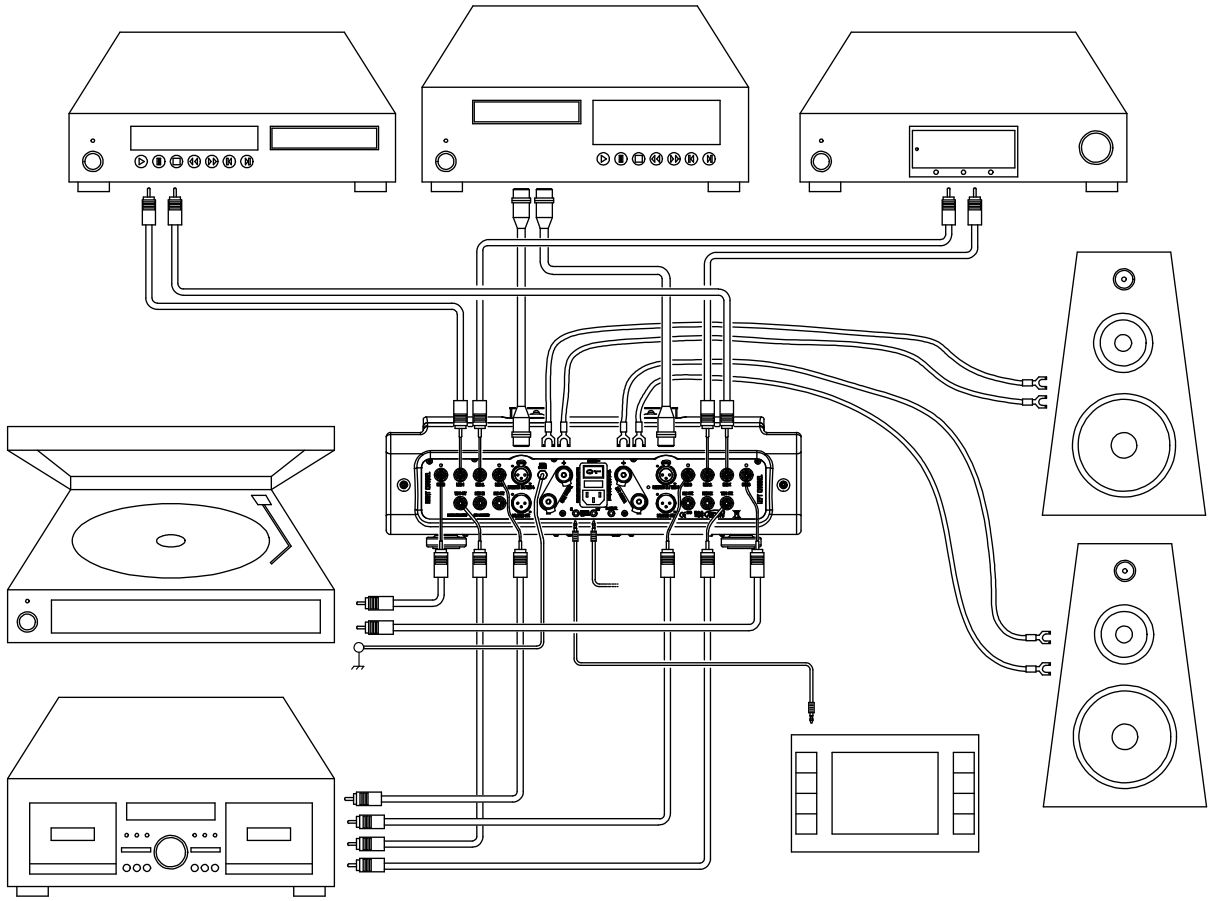
NEVER TRY to open the loop by altering the earth connection of one or more components. The connection between earth and components' chassis is mandatory for user's safety and is imposed by laws! Every change to the connection between earth and Talia's chassis or to the connection of any other component of your system exposes you to great risk of electric shock, and it increases the possibility of causing damages to the components.

Single-ended and balance connections

Partenope is provided with four single-ended inputs (that is unbalanced, phono input included) and a balanced input. It's provided both with pre single-ended and with pre balanced outputs. Both outputs are operative, no matter the selected input: thus, it is possible to connect the power amplifier to Partenope via the balanced connection and to listen to any single-ended source, and vice versa. This is made possible by the intrinsic auto-balancing feature of Partenope.

Usually, a single-ended connection between a source and Partenope or between Partenope and the power amplifier is perfectly satisfactory, but it may happen that a balanced connection is preferable. For example, when a source or a power amplifier is provided with balanced XLR connectors only, the balanced connection is required (this is often true with professional or professional-derived components).

Another common instance in which a balanced connection between Partenope and a power amplifier is preferred is when the power amplifier is far from Partenope. This happens usually when the sources are placed close to the listening "sweet spot", while the Partenope is close to the speakers to minimize length of the power cables and to maximize the dynamic performance of the system. A long unbalanced interconnect can pick-up noise despite its shielding. Instead, a balanced interconnect offers greater rejection to disturbances and is therefore recommended.



General Connections scheme

Partenope is typically connected to the sources of the audio system and to the speakers, even if it's possible to make multi-amplified configurations using one or more power amplifiers or using active electronic crossovers.

As shown by the scheme in this page, it is possible to connect a turntable or a tape recorder to Partenope's specific (optional) phono input. For the latter, outputs (generally labelled as "PLAY" or "OUT") should be connected to one of inputs of Partenope (generally labelled "REC" or "IN") must be connected to Partenope's "tape out".

Note It is possible to connect a balanced source to Partenope's balanced input (No5).

Note When making connections, pay attention to connectors' colors: white or black RCAs should always be connected to Partenope's

left inputs (the upper one of each pair of RCA input connectors), while the red connector should always be connected to Partenope's right inputs (the lower one of each pair of RCA input connectors).

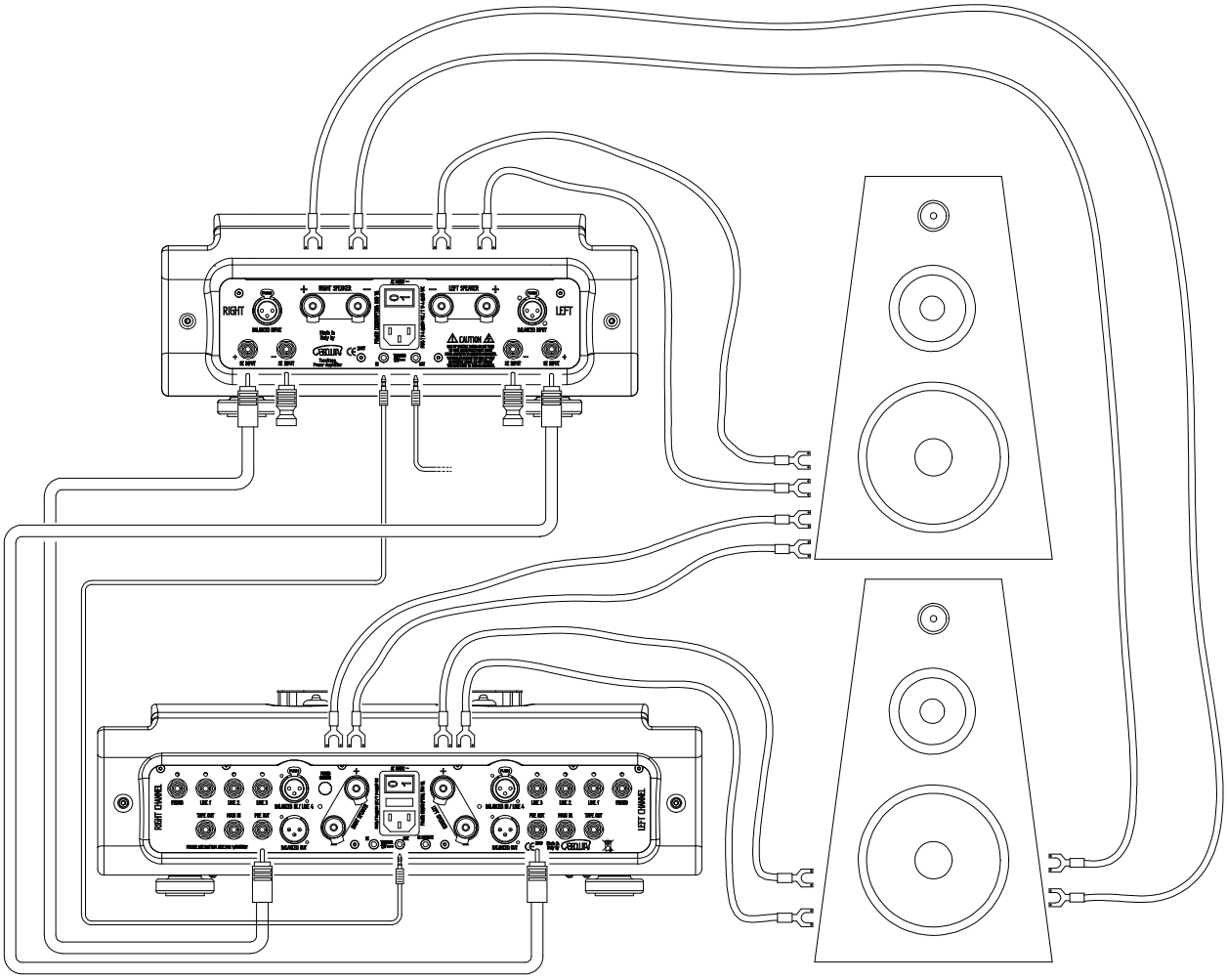
Should this convention not be respected, no damage risk arises for the source and for Partenope, but music will be heard with channels exchanged, thus the soundstage will be mirrored with respect to the original event. This may not be a problem with pop music, but it alters the right presentation of an original event when listening to classical music, particularly symphonic music.

Warning!

Before making any connection, make sure that all components are off and their power cords are disconnected from any power outlet. NEVER make any connection between Partenope and other components when even only one of them is connected to the electrical net.

It's possible to connect Partenope's trigger input to a custom installation controller's trigger output. This way it's possible to activate and defeat Partenope directly by the controller. If the controller is provided with an IR commands generator, with a suitable IR emitter placed close to one of Partenope's sensors, it's also possible to perform every single one of the features of the power amplifier through the controller.

Partenope's trigger output is generally used to cycle the power amplifier connected to it, so as to operate the entire amplification chain by the sole standby/on button on the remote control.

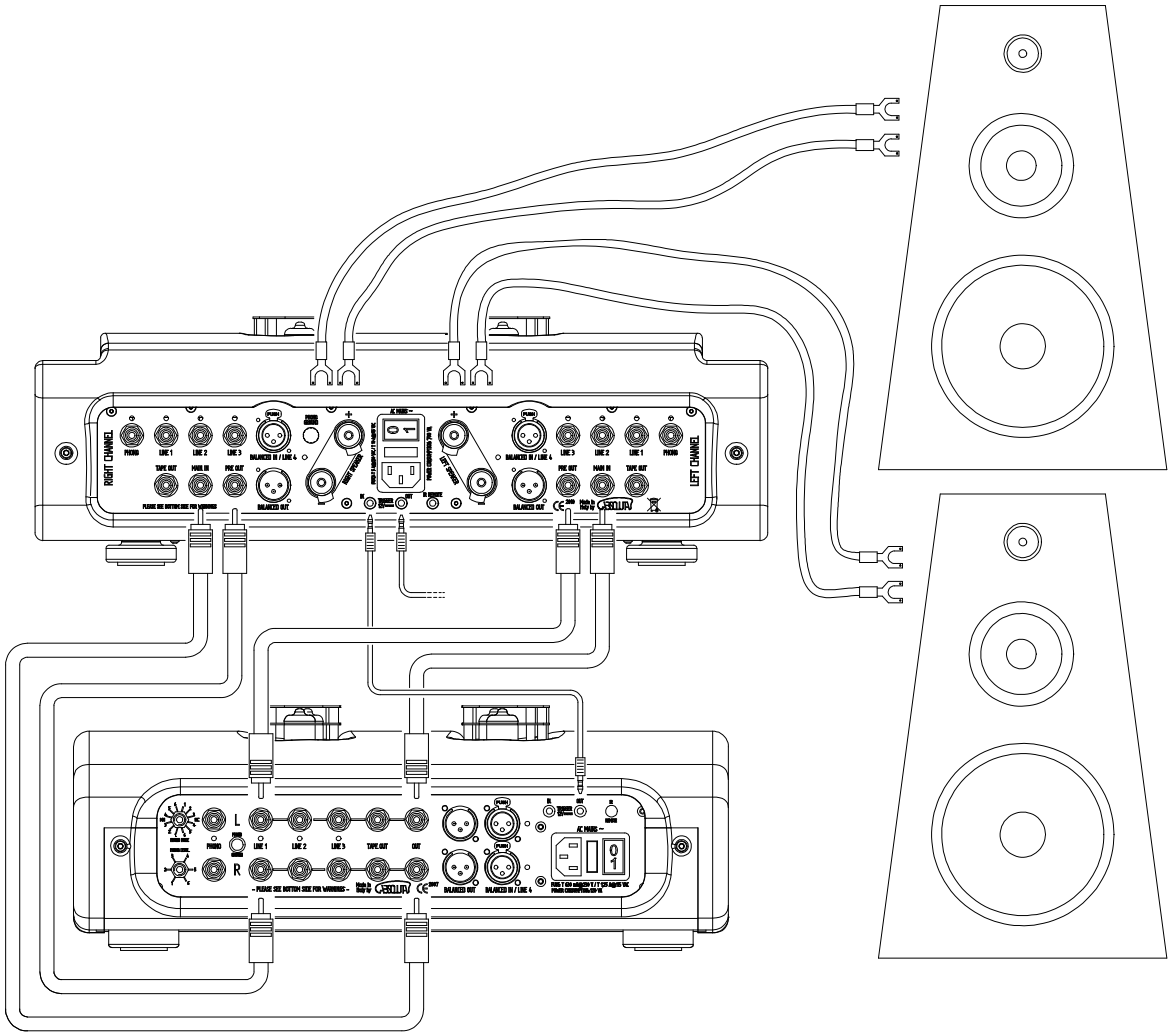


Biamping with external power amplifier

Often it is possible to improve the performance of the speakers bi-amping, that is to say utilizing a power amplifier to drive the low frequencies of the speaker and another amplifier to drive the high frequencies. In order to do so the speakers must have 2 couples of binding posts, one couple for each independent connection.

Partenope has only one power amplifier per channel, so it is necessary to use another power amplifier (for instance Absoluta Tersicore)to receive the signal from Partenope. In order to create this connection you must connect the pre out output of Partenope (p. 23 n.8/9) to the input of the other power amplifier.It can be useful to connect the trigger output of Partenope 8 p.24 n.11/12) to the trigger input of the other

amplifier (if available) so that the other power amplifier can be activated through Partenope.



USE OF A SIGNAL PROCESSOR OR OF AN ELECTRONIC CROSSOVER

It is possible to separate the pre-amplifying section of Partenope from its amplifying section. (p.28, n.9). The output of the pre-amplifying section is always available on the PRE OUT connenctors. The input of the amplifying section becomes available when the separation is activated, on the connectors MAIN IN.

By activating the separation among the pre-amplifying and the amplifying sections of Partenope it is possible to connect, between the two sections, a signal processor (such as an

equalizer, a DRC processor..), or electronic crossover. Connecting an electronic crossover will allow to implement an active bi-amping with the speakers.

Troubleshooting and Maintenance

Troubleshooting

A wrong use is sometimes mistaken for a malfunction. Should problems occur, refer to this section for troubleshooting. If problems persist, contact your authorized Absoluta dealer.

1. The amplifier doesn't turn on (the first turn-on, into standby, is indicated by standby/on indicator turn-on).

- Check for mains power cord correct insertion in the mains socket.
- Check for mains power cord plug correct insertion in the mains outlet.
- Check for power cord integrity.
- Make sure that the main power switch is on "1" or that the trigger input is driven with a 12 V DC voltage with the correct polarity.
- Check for mains fuse integrity.
- It is possible that one of the internal fuse is blown. In this case, disconnect the unit from the power outlet and contact your authorized Absoluta dealer. **DO NOT try to replace any fuse, nor other serviceable parts inside the unit.**

Warning!

Potentially dangerous voltages are present inside Partenope, even when the unit is off. DO NOT try any servicing inside the unit. DO NOT open the unit. Contact your authorized Absoluta dealer for servicing.

2. The amplifier correctly turns on and enters standby, but doesn't react to every command by the remote.

- Check the batteries of the remote control.
- Check for an excessive distance between Talia and the remote.

Troubleshooting (continued)

3. The amplifier correctly exits standby when pressing standby/on button on the remote or rotating the front panel left knob clockwise, but warm-up sequence is not completed.

- DC offset is present on the selected source's output, too strong for the offset compensation circuit to restore. Disconnect the source and take it to a technician for assistance.
- DC offset is present on Partenope's outputs due to a fault. Contact your authorized Absoluta dealer for assistance.
- One or more tubes are worn-out and must be replaced. Contact your authorized Absoluta dealer for replacement.

Warning!

Being Partenope an amplifier with a tube preamplifying section with DC coupling without global feedback, its circuit is very sensitive to tubes characteristics. NEVER replace tubes with other models or with same models by other manufacturers: the circuit might not work properly or might be damaged.

4. The amplifier doesn't activate using trigger input.

- Check for correct connection and of the cable between the trigger output of the preamplifier and the trigger input of Partenope.
- Check the integrity of the cable used for the above mentioned connection.
- Check the polarity and the magnitude of the trigger voltaged.

5. The voltage at the Partenope trigger output doesn't reach the component to which the output is connected to.

- Check for integrity of the cable used to take the trigger voltage from Partenope to the other component trigger input.
- Check for magnitude and polarity of the voltage required to activate the component to be activated by Partenope.

6. The sound produced by Partenope is distorted at high levels.

- Partenope does not have enough power to drive the speakers it is connected to. You might try bi-amping or you might try to use a power amplifier such as a Tersicore or 2 Janus.

Troubleshooting (continued)

- The selected source has an excessive output level for the desired listening set-up. Turn volume down.
- One or more tubes are worn-out and must be replaced. Contact your authorized Absoluta dealer for replacement.

7. Partenope becomes too hot.

- The unit is not properly ventilated or is placed in a place that is too hot. Provide adequate room around, over and under the unit to increase ventilation, and/or move it to a cooler place.
- One or more tubes are worn-out and must be replaced. Contact your authorized Absoluta dealer for replacement.
- A strong DC offset is present at the Partenope's input selected for listening (see item 3 to solve this problem).
- The unit is damaged. Switch Partenope off and contact your authorized Absoluta dealer.

8. A light electric shock is perceived when touching the exposed metal parts of Partenope when it is connected to the mains.

- Partenope earth connection is faulty. Switch the unit off, disconnect it from mains and contact your authorized Absoluta dealer.
- Your house mains network is not provided with safety earth, or the mains outlet you're using is not provided with earth connection. Contact a licensed electrician to solve this problem.

Warning!

DO NOT disconnect or eliminate the earth connection of mains outlet, power distributors of power cords for any reason! Partenope has been designed to provide top performance and safety with an earth connection. Using the unit without an adequate earth connection may result in damage to the unit or to other components connected to it and may harm or cause the death of whoever comes into contact with the metal parts of the unit!

9. Hum or a metallic resonance is heard in one loudspeaker when touching Partenope or during intense musical passages.

- One of the tubes of the affected channel has become microphonic due to wear-out. Contact your authorized Absoluta dealer to replace the tube.

10. Hum is heard when listening to a turntable.

- The connection of the turntable interconnect shield is not properly executed. Check wires conditions at both turntable and Partenope ends.
- The electrical net of your house is not provided with safety earth.
  The wall outlet or the power distribution strip you're using are not provided with earth connection. Contact a licensed electrician.

11. A strong "bump" is heard on speakers when toggling the muting.

- The selected source has DC offset on its output, too low to engage the protection circuit but sufficient to alter Partenope's proper operation. Disconnect the source and take it to a technician for servicing.
- The preamplier section of Partenope has been damaged or is faulty and it generates a strong DC offset. Turn off Partenope and contact an authorized Absoluta dealer servicing.

Note

In all other cases not covered by this section, switch unit off and disconnect from mains outlet and from all other components of the system. Contact an authorized Absoluta dealer for assistance.

Maintenance

Partenope has been designed to give his owner years of trouble-free use. The unit doesn't require any maintenance on a regular basis, nor adjustments of any kind. The only special required maintenance is the replacement of the 6 tubes used in audio circuits. Tubes should give 20,000 hours of use, that is a daily use of 2 hours for more than 25 years. This duration can reduce due to frequent power cycling. Anyway, tube replacement due to a normal us is unlikely.

The only maintenance operation to be done on a regular basis is the one needed by the outer shell, to remove dust and fingerprints.

Note

Failing to follow the indications in this section may result in damages to the unit and warranty voiding.

- Use a feather duster or a low pressure blower to remove dust from Partenope surface and from the heat sinks.
- Use a soft, lint-free cloth to remove dirt and fingerprints from Partenope exterior surface. DO NOT use a cloth made with steel wool or metal polish.
- When needed, the cloth can be dampened with isopropyl alcohol to clean metal parts. DO NOT use acetone, benzene and other commercial cleaners.
- The outer shell must be treated, depending on the material it's made of and depending on its finish, with the cleaner recommended by the manufacturer (the indication is given together with the shell, on a separate sheet).

Warning!

DO NOT drop or apply liquids directly on the unit, because this could damage the internal components and impede the unit's proper operation.

Specifications

Preamplifier Output voltage	• 3.5Vrms (Single-ended) • 7Vrms (Balanced)
Output impedance Pre Out	• 220Ω (Single-ended) • 440Ω (Balanced)
Input impedance	• 47kΩ (Single-ended, line) • 100kΩ (Balanced) • 47kΩ, 23.5kΩ, 1kΩ, 100Ω, 33Ω selectable (Optional Phono)
Input capacitance MM Phono	• 100pF,1120pF,(selectable)
Gain	• 16dB (Line) • 40dB (MM) - 60dB(MC) (@ 1kHz, phono)
THD + N Preamplifier	• 0.03% (Line, @ 1Vrms out) • 0.5% (Phono, @ 5mVrms on tape output)
Signal-to-noise ratio Preamplifier	• 90dB (Line, not weighted, ref. 5Vrms out, single-ended) • 83dB (Phono MM, 40dB) • 73dB (Phono MC, 60dB)
Power Output	• 100 Wrms p.c. su 8Ω @ 1kHz • 180 Wrms p.c. su 4Ω @ 1kHz • 270 Wrms p.c. su 2Ω @ 1kHz

Specifications (continued)

TDH Power Amplifier	• 0.05% @ 1W/8 Ω, 1kHz
Peak current	• 15A p.c.
Absorbtion	820VA
Mains voltage	Read lable on back panel. It can be selected internally, please contact Absoluta.
Size	• 470 x 159.5 x 514.3mm (see section on dimensions)
Weight	• With packing: 43Kg • Net: 31kg
Connectors	• 14 gold plated RCA input connectors • 1 binding post for connection to chassis • 2 female XLR balanced input connector • 2 male XLR balanced output connector • 3 mini-jack (3,5mm) connectors for triggers • 2 binding posts for connection to speakers • 1 IEC mains socket

Dimensions